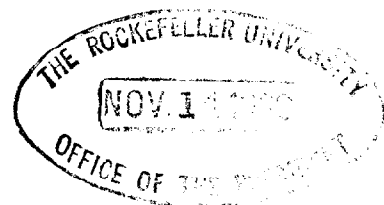


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DEPARTMENT OF BIOLOGICAL SCIENCES

November 7, 1980

Dr. Joshua Lederberg  
The Rockefeller University  
New York, New York 10021

Dear Josh:

I tried to track down sources of the Beadle/Tatum Neurospora stocks in 1974. Copies of my correspondence then with Carl Lindegren and with Malloch are enclosed.

Both N. crassa and N. sitophila were used in the 1941 experiments at Stanford. It seems clear that the sitophila came from B. O. Dodge. Is it possible that Dodge filed his correspondence, and that a letter could be found in the archives at the New York Botanic Garden?

I suspect that the stocks Beadle got from Malloch were N. tetrasperma, or, if not, that they were useless, and that the acknowledgment to Malloch in the 1941 paper was a courtesy. Beadle in 1973 names Dodge and the Lindegrens as sources. Jerry Lindegren, who would have done the work of sending stocks from St. Louis to Stanford, recalled 1940 or 1939 (see P.S. to Carl's 1974 letter).

I went to talk with Dave Regnery since receiving your note. He was a student here during the critical year. Although he didn't himself take Tatum's course, he knew people who attended it. Here are some notes from my conversation.

Neurospora stocks must have been obtained well before the March 1941 date in your Ann. Rev. Genetics biography. Irradiation experiments were well along when Dave left Stanford in June 41, before graduation, to take the embryology course at Woods Hole. The first X-irradiations were in May. By that time, media had been worked out, crosses made, and  $f_1$  stocks obtained from the original Lindegren parents. Dave thinks December or January would be most likely for the acquisition of Neurospora stocks. Dave says that Beadle hadn't yet decided on Neurospora in the fall of 1940, because he and Beadle went together, late in 1940, to prune-orchards south of Stanford and collected Pyronema from burned trimmings, and the trimming and burning didn't occur till fall. He speculates that Beadle may have disliked the prospect of asking Lindegren for stocks because of poor relations with Carl at Cal Tech, where they were both located in the early 30s.

Tatum's course was apparently a labor of love--his first venture into teaching from a career that had been entirely lab oriented. Ed apparently worked very hard preparing it. Only about ten people attended, of whom Dave is certain of Taine Bell and Beadle. Loring (now dead) may have attended. Bell would recall others. The course in question was probably given in winter or spring quarter of 1939-40.

! 40-41!

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Bell didn't get along with Beadle (or didn't like him) but admired and liked Tatum. Taine should be an excellent source of information about the period in which you are interested.

Dave Regnery says that he feels Tatum was badly hurt by the Butenant scoop. When Dave was to take a German reading exam from Tatum, Ed gave him the Butenant note, saying without smiling something like: "Here, this will interest you." Dave feels that Beadle and Tatum realized clearly after this experience that working from eye colors or similar existing phenotypes back to the enzyme was a back-breaking and impractical approach, and this realization, more than anything else, must have readied them for the new approach.

In considering what organism to use, Beadle (and/or Tatum) may have consulted a mycologist who was then working with G. M. Smith in a nonfaculty capacity. It was probably this man (named Johannsen) who suggested Pyronema to Beadle. But Pyronema didn't work out.

When Dave arrived at Cal Tech from Woods Hole in September 41, Sturtevant told him "Beadle did it."

Most of these rather rambling notes aren't directly relevant to your present interest, but I'll pass them along in case something in them may suggest a fruitful lead.

The following sources of information might be most likely to produce pay dirt:

✓ 1) Taine Bell's memory of E.L.T. and his course. Bell might recall other students or auditors who could conceivably have notes or recall critical points, such as whether the idea of getting nutritional mutants was discussed in the class, after it was formulated.

✓ 2) Stanford course catalog or time schedule should list Tatum's 1939-40 course and the quarter in which it was given. The University archivist could dig this out, and could see whether any Registrar's records still exist as to course registrants. *It is 40-41; Jan 41.*

*I will check }* 3) George Rudkin TA'd for Beadle around 1939-39, and had probably left by 1939-40, but he might have background information.

✓ 4) Clancy, now in Oregon, was also there during the Drosophila phase, and might contribute background on E.L.T.

I hope some of this is useful.

Best wishes.

As ever,



David Perkins

*✓ = I've checked*

DP:gm  
Encl.